

WHAT IS CLAIMED IS:

1. Run-in coating with metal wire bundles combined into brushes for an axial-flow compressor stage of a gas turbine, particularly a gas turbine engine,

wherein the brushes are strip-shaped, oriented at least predominantly in axial direction and distributed uniformly spaced apart over the circumference of the rotating blade area of the axial-flow compressor stage so as to form a zebra-striped brush field.

2. Run-in coating as claimed in Claim 1, wherein the metal wire bundles combined into brushes have free ends facing the rotor blade tips, these metal wire bundles are inserted with their opposite ends in corresponding uniformly distributed grooves made in the basic material of a stator that is associated with the rotor.

3. Run-in coating as claimed in Claim 1, wherein grooves receiving opposite ends of the metal wire bundles are arranged in individual brush segments, which are held in a recess made all around in the stator.

4. Run-in coating as claimed in Claim 1, wherein grooves receiving opposite ends of the metal wire bundles have a dovetail-shaped cross-section and are filled with a heat-resistant resin after the opposite ends of the metal wire bundles have been inserted.

5. Run-in coating as claimed in Claim 1, wherein opposite ends of the metal wire bundles forming the brushes are enclosed by bar-shaped holders that are associated with grooves having a corresponding cross-section, wherein the holders are shrunk into the grooves.

6. Run-in coating as claimed in Claim 1, wherein the metal wire bundles are made of superalloys, and their individual wires have a diameter of 0.14 mm, with 50 wires each being combined per mm².

7. Run-in coating as claimed in Claim 2, wherein the metal wire bundles are made of superalloys, and their individual wires have a diameter of 0.14 mm, with 50 wires each being combined per mm².

8. Run-in coating as claimed in Claim 3, wherein the metal wire bundles are made of superalloys, and their individual wires have a diameter of 0.14 mm, with 50 wires each being combined per mm².

9. Run-in coating as claimed in Claim 4, wherein the metal wire bundles are made of superalloys, and their individual wires have a diameter of 0.14 mm, with 50 wires each being combined per mm².

10. Run-in coating as claimed in Claim 5, wherein the metal wire bundles are made of superalloys, and their individual wires have a diameter of 0.14 mm, with 50 wires each being combined per mm².

11. Use of a run-in coating as claimed in Claim 1, as a so-called casing treatment.

12. A gas turbine engine axial flow compressor assembly comprising:

a compressor stator housing which in use surrounds a rotor with rotating blade tips facing a section of the stator housing wall, and

a run-in coating provided at the section of the stator housing wall and including metal wire bundles anchored at the stator housing wall and forming brushes with free ends of the wires facing the rotating blade tips,

wherein the brushes are strip shaped and extend in a longitudinal direction of the stator housing, said strip shaped brushed being distributed over the interior circumference of the stator housing with circumferential spacing between adjacent ones of said brushes.

13. An assembly according to Claim 12, wherein the brushes are anchored directly in grooves formed in the material of the stator housing wall.

14. An assembly according to Claim 13, wherein the grooves have a dove-tail shaped cross-section and are filled with a heat resistant resin after insertion of the wire bundles forming the brushes.

15. An assembly according to Claim 12, wherein the wire bundles are fixed to bar-shaped holders, and

wherein the bar-shaped holders are inserted in grooves in the stator housing wall.

16. An assembly according to Claim 15, wherein the bar-shaped holders accommodate a single strip of wire bundles forming a brush.

17. An assembly according to Claim 15, wherein the bar-shaped holders have a plurality of grooves accommodating respective strips of wire bundles forming brushes.

18. A method of making the assembly of Claim 12, comprising:

forming longitudinally extending grooves in the stator housing wall,
and

anchoring the wire bundles in the grooves.

19. A method according to Claim 18, wherein said anchoring includes filling the grooves with a heat resistant anchoring resin after insertion of the wire bundles in said grooves.

20. A method according to Claim 18, wherein said wire bundles forming a strip are first attached to a bar-shaped holder and then said bar-shaped holders are inserted in respective ones of said grooves.